

# TRAINING FOR SKILL

Recruitment and Training  
of Young Workers in Industry

Report by a Sub-Committee of the  
National Joint Advisory Council



*LONDON*

HER MAJESTY'S STATIONERY OFFICE

1958



## NATIONAL JOINT ADVISORY COUNCIL

The National Joint Advisory Council comprises representatives of the British Employers' Confederation, the General Council of the Trades Union Congress, and the Boards of the Nationalised Industries, under the chairmanship of the Minister of Labour and National Service. The Council, which advises the Government on matters in which employers and workers have an interest, gave general approval to this Report in January, 1958 and agreed that it should be published.

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*Numbers of Boys and Girls reaching the Age of Fifteen*  
(1956-1971)

Thousands

Year	England and Wales			Scotland			Great Britain			Increase over 1956 %
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	
1956	273	264	537	39	37	76	312	301	613	—
1957	309	295	604	38	38	76	347	333	680	11
1958	324	309	633	40	39	79	364	348	712	16
1959	356	339	695	41	40	81	397	379	776	27
1960	321	308	629	37	36	73	358	344	702	13
1961	392	375	767	46	44	90	438	419	857	40
1962	424	405	829	51	49	100	475	454	929	52
1963	375	359	734	45	43	88	420	402	822	34
1964	354	339	693	44	41	85	398	380	778	27
1965	339	324	663	42	39	81	381	363	744	21
1966	332	317	649	41	40	81	373	357	730	19
1967	330	316	646	41	39	80	371	355	726	19
1968	338	322	660	42	39	81	380	361	741	21
1969	334	318	652	42	40	82	376	358	734	20
1970	333	317	650	43	41	84	376	358	734	20
1971	349	331	680	44	42	86	393	373	766	25

Source : Government Actuary's Department

# I. Introduction

## THE "BULGE"

1. In each year since the Second World War, about 640,000 boys and girls have reached the age at which they are legally free to leave school. In 1958, the number of fifteen year-olds will rise to 712,000 and in 1962 to 929,000. In 1962 there will be 316,000 more fifteen year-olds than there were in 1956, which is an increase of more than 50 per cent. From 1963 onwards the numbers will drop rapidly to about 740,000 in 1965, and will remain at about that level for so far as it is possible to foresee. The figures are shown in the table opposite.

2. The present trend is for young people to stay on longer at school. If this trend is continued its effect will be to flatten the "bulge" slightly, particularly in the years after 1962. During these years the number of school leavers will fall less rapidly than the number of fifteen year-olds. This tendency for young people to stay on longer at school also means that the percentage increase in the numbers leaving at older ages will be much greater than the percentage increase in those leaving at fifteen. It is not possible to show figures for Great Britain in one table, but the following table shows how this tendency is expected to apply in respect of schools maintained by local education authorities in England and Wales.

### *School Leavers at Different Ages*

*The peak year for each age group is shown in bold type*

Children who in the year they leave school will reach the age of	1956	1962	1963	1964	1965	Percentage increase of peak year over 1956
15	333,000	494,000	430,000	401,000	377,000	48
16	68,000	109,000	121,000	109,000	105,000	78
17	34,000	49,000	62,000	70,000	64,000	106
18 and above	31,600	49,000	49,400	55,800	66,200	109
Totals :	466,600	701,000	662,400	635,800	612,200	50

The numbers of boys and girls leaving school at ages above fifteen in Scotland are also expected to rise, though less rapidly than in England and Wales.

3. Thus for a few years only there will be a substantial increase, at all ages, in the number of boys and girls leaving school. These young people will expect—and we think they have the right to expect—that their opportunities of obtaining training for skilled employment should not be adversely affected because they happen to have been born at a particular time. They represent an additional supply of potential skill which we must not allow to be wasted.

#### *Ending of National Service*

4. In 1962, also, national service is due to come to an end. The establishment of the armed forces on an all-regular basis will mean that, gradually during the next five years, between 200,000 and 250,000 young men, who would previously have been absent on national service, will become available for civilian employment. The effect of this on the numbers of young men available for training for skilled civilian employment will be negligible, because most apprentices already obtain deferment of national service until the completion of their apprenticeship. It will, however, mean that in the early nineteen sixties the number of ex-apprentices becoming available for employment will increase. Young men who completed their apprenticeships two years earlier will be returning from national service, and in addition there will be those young men who, on completion of their apprenticeships, will pass straight into adult employment.

5. In so far as an industry is not at present recruiting sufficient apprentices to meet its future needs, this increase in skilled manpower, viewed against the long-term population trends to which we refer below, will do no more than help to remedy the inadequacy of its present intake of apprentices. Even in the short-term the effects will be mitigated by the need to find instructors for the larger number of apprentices which will need to be recruited. We realise that some individual firms which are already recruiting apprentices in numbers adequate to their own future requirements may during the next year or so find it difficult to maintain their present rate of intake. We hope, however, that they will make every effort to do so, both in the interest of their industry as a whole, and in order to be able to release some of their adult skilled workers to act as teachers at technical colleges where needed.

6. We have no doubt that the existence of national service has dissuaded a number of firms, particularly the smaller ones, from taking on boys as apprentices. The need for an apprentice to do two years national service on completion of a five year apprenticeship has meant that there has been an interval of seven years between the engagement of a boy as an apprentice and his entering skilled adult employment. Moreover, the fact that a boy whom they have trained will have to

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leave them for two years on completion of his training, with the possibility that he may never come back, has persuaded a number of firms that to take on an apprentice is not worth while. The ending of national service will remove these difficulties.

### *Long Term Population Trends*

7. We have set out the facts about the increased numbers that will be available for civilian employment on account of the "bulge" and the ending of national service. But it is necessary to view these increases in their proper perspective. Over the next twenty-five years the working population in Great Britain is expected to increase by 1,500,000. This may seem a large amount, but it should be compared with an increase of nearly 1,000,000 that took place in a period of only five years, from the beginning of 1951 to the end of 1955. During the whole of that time there was a serious shortage of skilled workers. Moreover, unless there is a change in customary ages of retirement, the increase in the working population in future years will not keep pace with the population as a whole. This is because the population will, on average, be getting older, so that in twenty-five years' time there will be about 9,500,000 people of pensionable age compared with about 7,000,000 today. At the other end of the age-scale, the number of children at school is likely to decline (by how much will depend on the birth rate during the intervening years and any changes in the age at which children leave school), but by a much smaller amount.

8. Thus the "bulge" will do no more than reduce the decline in the relative size of the country's labour force as compared with the total population. We realise that there are some areas in which the incidence of the "bulge" may create employment problems, and we understand that this is a matter to which the Ministry of Labour is at present giving attention. But for the country as a whole, the problem presented by the "bulge" is not one of employment. It is how to ensure that the facilities for training over the next few years are adequate, both in numbers and in quality, to take advantage of the extra numbers of young people who will be entering employment during this period. There will be a particular need for an increase in the number of craft apprenticeships. This is a short-term problem; but, as we have shown above, failure to grasp the opportunities which it presents can have serious long-term consequences. We cannot have skilled workers tomorrow unless we are prepared to train them to-day.

## TRAINING

### *Is Apprenticeship Out of Date?*

9. A large part of the industrial training given in this country is by apprenticeship. There are some people who say that the apprentice-

ship system is out of date and no longer relevant to twentieth century conditions. People were saying the same sort of thing in the middle of the last century, yet so far from ceasing to exist the practice of apprenticeship has been greatly extended since then. About one-third of the apprentices of today are in occupations that may roughly be described as "engineering"; and many of these occupations did not exist a hundred years ago. Besides craft apprentices we now have student and graduate apprentices, and more recently technician and commercial apprentices. We now have apprenticeships comprising what are known as "sandwich courses" in which the apprentice spends about half of each year with a firm and half at an educational establishment. The truth is that as circumstances and industry's requirements have changed over the last hundred years so the apprenticeship system has adjusted itself to meet them—as it has throughout its long history. One of the best traditional features of apprenticeship is its capacity for change.

## *The Need for Change*

10. Some of these changes have taken place gradually; others, such as day release for further education and sandwich courses, though they may have been long in germination, have developed rapidly once the idea has caught on. We believe that it is time for a fresh look to be taken at some of our existing apprenticeship practices. The pace of technical change has increased rapidly; more attention is now being paid to training as a technique in itself; far-reaching changes are taking place in the educational system; and, though the increasing number of school leavers over the next few years will barely be sufficient to meet what industry will need, existing facilities for training are inadequate in quantity and, in some cases, in quality as well.

11. We have asked ourselves whether a continuation of the evolutionary process in our apprenticeship system will be sufficient, or whether we should not suggest more radical changes. We have therefore examined the arrangements in a number of other countries, though we have borne in mind that these must be viewed in the setting of the social and industrial environment of which they form a part.

## *Foreign Practice*

12. We sought information, first, about practice in the United States of America. For many years the United States was able to rely on the skill brought in by its immigrants, and it is only since the end of the First World War that there has been any widespread use of apprenticeship as a means of training. (In Canada the need to train apprentices did not arise on any scale until after the Second World War.) Though there are many differences on points of detail, practice

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in the United States is similar to our own in that training is given in the course of employment supplemented by attendance at technical classes. As in our own country, the responsibility for formulating schemes of apprenticeship training rests on each individual industry. A Federal Committee on Apprenticeship has been established to help and advise industries in drawing up and implementing their apprenticeship schemes.

13. In Australia, though practice varies in the different States, apprenticeship is controlled by legislation. We do not believe that such an arrangement would be suited to conditions in this country.

14. Apprenticeship in the United States and in Commonwealth countries is a twentieth century development. The problems of introducing apprenticeship at a comparatively late stage of industrial development are different from those involved in adapting to modern needs an apprenticeship system of long standing. The experience of European countries, which, like ourselves, have a long tradition of apprenticeship, is thus of special relevance to us.

15. Our visit to Western Germany gave us the opportunity to see for ourselves something of the way in which training is conducted in the Federal Republic. Both the German conception of apprenticeship and the way in which their training is organised differ from our own to an extent that is not, perhaps, sufficiently brought out in the published material on the subject. One important difference is the German willingness to accept a high degree of central control over apprenticeship, backed by statute, which we do not think would be acceptable—or desirable—in this country. Another difference is that the German apprentice is regarded as a trainee rather than an employee and receives only a small training allowance in place of a wage. We were impressed by the enthusiasm shown for apprenticeship in Germany and by the standard of training given, and we shall refer later in this Report to various points in German practice from which we might usefully learn.

16. The most distinctive feature of French practice is that many of their apprentices are trained at special apprenticeship centres rather than in employment. The building of *centres d'apprentissage* in our own country has sometimes been advocated as one means of providing the extra training facilities that will be needed to cope with the increased number of school leavers over the next few years.

17. We think that there are considerable advantages in training and employment being closely allied, as they are in this country, but the French system of training in an apprenticeship centre has merits of its own. Nevertheless, however attractive a solution on these lines might appear to be, the suggestion that the problems of the "bulge"

could be solved by the Government building a number of apprenticeship training centres is not a very practical one. The Government has already committed a considerable proportion of its building resources to the expansion of facilities for technical education. We feel that it would be better to concentrate any additional resources that might be available on the building of technical colleges, and to leave to industry the responsibility for ensuring that its facilities for industrial training are adequate.

### *Our Own System*

18. We shall suggest later that information on foreign practice should be collected and disseminated for the benefit of our own industries. Nevertheless we have concluded that we should build upon foundations that have already been laid rather than attempt to construct something entirely new. We consider that, as a general principle for the future, the existing division of responsibility between Government and industry for the education and training of apprentices should be maintained. The efforts of the Government should be directed to the expansion and improvement of the facilities for technical education, while the responsibility for the industrial training of apprentices should rest firmly with industry. At its best the British apprenticeship system is at present turning out skilled workers who are the equal of any in the world. Unfortunately there are not enough of them. The number of apprentices needs to be increased and the training of all brought up to the standard of the best. Above all, the system itself must not be allowed to lose its capacity for change and improvement.

## EDUCATION

19. It is no accident that the major changes that have occurred so far in the apprenticeship system have been due to the extension of educational facilities. Apprenticeship has always been regarded as providing education for life as well as training for a job, and over very many years the apprentice owed a large part of his education to what he was taught by his master. Many of those in positions of authority in industry today began their careers as craft apprentices. In recent years the educational system has taken over an increasing share of the responsibility for the education of apprentices. A most important development is that a boy can now stay on longer at school and improve his education before he begins his industrial training. The fact that it is possible for boys who may become our future industrial leaders to enter apprenticeship at higher educational levels than in the past is greatly to industry's benefit, even though it may require some rethinking of existing ideas on the appropriate age for entry into apprenticeship.

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An increasing number, too, of young people who will make excellent craftsmen will in future be staying on longer at school. Their improved educational standard, and their consequent ability to absorb training at greater speed and so at reduced cost, should more than outweigh the disadvantages of their starting their apprenticeship at later than what has hitherto been considered the appropriate age. We discuss this point further in paragraph 46.

## A TASK FOR EACH INDUSTRY

20. We have framed our proposals in the form of general recommendations which we ask industry in general, and each industry in particular, to consider. We have done this, partly, because each individual industry is responsible for ensuring the adequacy of its own training arrangements and the fulfilment of its obligations to the young people it takes into its employ. But of greater importance is the fact that conditions vary widely between industries and between different occupations within industries. It is one of the main themes of our report that training arrangements should be as flexible as possible, and be designed to meet the circumstances of different occupations. There are no stereotyped arrangements that would meet the requirements of all sections of industry.

## II. Graduate, Student and Technician Apprentices

### *Scientists and Technologists*

21. The country's future requirements of scientists and technologists were the subject of a report published in 1956 by the Ministry of Labour and National Service and the Advisory Council on Scientific Policy. The Council concluded that by 1970 the number of people obtaining professional qualifications in science and engineering would need to rise from ten thousand to twenty thousand a year. This doubling of output was described as a "minimum goal". The industrial training of scientists and technologists will usually be by means of graduate or student apprenticeship.

### *Technicians*

22. At somewhat below professional level are those workers who are sometimes referred to as "technicians". The term is not a precise one and covers a fair range of different occupations. The main feature they have in common is that the educational qualifications required are usually of about National Certificate standard. Changing industrial techniques appear to be leading to an increase in the number of technicians needed and to the introduction by industry of new methods of training them. Hitherto industry has obtained most of the workers of this sort whom it has required by promoting craft apprentices or, in some cases, by using student apprentices who have failed to achieve professional status. A recent development is that some firms have introduced special technician apprenticeships for entry into which a General Certificate of Education in certain subjects at "O" level is normally required. The identification of those jobs for which qualifications at the technician level are desirable, and a consideration of the methods of training most appropriate to them, are matters to which we would draw the special attention of employers' associations and the professional institutions.

23. At the present time it seems impossible to state with any precision what the future requirements of technicians are likely to be.

The White Paper on "Technical Education" has expressed the opinion that "as many as five or six technicians may be required to every technologist", though the use to be made of such figures in calculating the number of technicians required must to some extent

depend on how the term "technician" is defined. Certainly the number needed is likely to be large and to tax our industrial and educational facilities for training them.

### III. *Craft Apprentices\**

#### NUMBERS

24. In the attention that is rightly being paid to the need for technologists and technicians at the present time, there may be a tendency to overlook that it is the skilled craftsmen who are, and will remain, the backbone of industry. Technical change (including automation) is likely to make some changes in the skills required—and we shall suggest a way of dealing with this problem—but it will not reduce industry's need for, and dependence on, the craftsman as such. No increase in the numbers of technologists and technicians will be of value, unless there are the craftsmen available to back them up. With our traditional reputation for skilled craftsmanship, it would be the height of folly if we were to overlook the importance of the craftsman.

#### *Absence of Statistics*

25. Our main difficulty in assessing the adequacy of intake into craft apprenticeships has been the almost complete absence of reliable statistics. Statistics relating to employment collected by the Ministry of Labour and National Service refer to industries and not to occupations within industries. This is because an essential ingredient in their collection is the National Insurance card. The use of these cards to supply information about occupations would be a very complicated operation, making great demands on manpower, both in the public service and in individual firms. The figures in the Census Report are of some help but they suffer from the disadvantage of relying on statements made by individuals themselves, which makes exaggeration of status easy and classification difficult. Moreover, they are, when published, several years out of date; the Occupational and Industrial Tables of the Census Reports for 1951 have only recently been published. In the course of our enquiry we asked each industry to say how many craftsmen and apprentices it had. Few industries were able to answer this question with any precision, and many were unable to supply any sort of answer at all.

\*In some industries the term 'learner' is used to describe what in other industries would be called an 'apprentice'. What we have to say about craft apprentices applies equally to them. In other industries a learner may be a young worker who is undergoing a course of training for a less skilled occupation. We refer to this type of training in the Section on 'Non-Apprentices'.

*Present Intake*

26. Yet signs are not wanting that the present intake into craft apprenticeship is inadequate. The number of vacancies for skilled occupations notified to Employment Exchanges has for many years past greatly exceeded the number of men in these occupations who are unemployed. This has been true even in those places where the total labour supply available has been temporarily in substantial surplus. The ratio of apprentices to craftsmen, as revealed in both the Census Reports and the answers to our own enquiry, varies widely between different occupations and different industries. Some of these differences are explicable but a great many are not; and as there is no indication that there are too many apprentices in any occupation, the inference is that in some occupations there must be too few. The Census Reports show that very few of the industries employing building and engineering craftsmen (other than these two industries themselves) were in 1951 employing any appreciable number of people in these occupations under the age of twenty. From this we conclude that they were relying on the building and engineering industries to train their skilled workers in these occupations for them. It seems reasonable to doubt whether these two industries were in fact training a sufficient number of additional apprentices to keep those other industries supplied with the skilled workers they required. Yet in spite of these apparent inadequacies, in the last year or two the number of apprenticeships on offer has actually declined.

*Future Demand*

27. Many industries have told us that, owing to technical developments or expansion of their activities, the number of apprentices they will require in future will increase. The Coal Industry expects that increased mechanisation and new schemes of maintenance work will increase its demand for mechanics and electricians. The demand for electricity is increasing by between seven and eight per cent. a year, and the Electricity Supply Industry therefore expects a considerable rise in the number of apprentices it requires. The Iron and Steel Industry has said that technical developments will increase its demand for maintenance craftsmen, although the skills required may be different. The Engineering Industry considers that continued expansion in the industry will lead to an increase in the number of apprentices required, even though there may be a tendency for the proportion of skilled workers to decrease gradually. The Shipbuilding and Ship-repairing Industry has said that new techniques are increasing the demand for skilled labour and that the industry could absorb a great many more apprentices than now. The Radio Servicing Industry refers to the rapid expansion of radio and electronics as increasing its demand for

skilled workers. The Railway Industry has informed us that its modernisation plans are likely to increase its demand for skilled workers in certain trades. The Civil Air Transport Industry will require a considerable expansion of its skilled labour force in the early nineteen sixties when it can no longer rely on the Royal Air Force and the Fleet Air Arm as a source of supply. In Agriculture, farming will become more mechanised and the industry expects to require fewer but more highly skilled workers. The Catering Industry (and the growing importance of this industry as an earner of foreign exchange should not be overlooked) says that its present requirements are not being met and that the building of new hotels will increase the need for trained workers; it states that it would itself "be able to absorb a large number of the increasing number of young persons leaving school during the next five years, at all levels of education". The Building Industry takes a more uncertain view of its future. The above industries include most of the major apprentice-employing industries in the country. On this evidence there is no doubt that the number of skilled workers—and so of craft apprentices—required in future will increase.

#### *Future Supply*

28. If the demand for apprentices will increase, what of the supply? The increase in the number of scientists, technologists and technicians required will have the effect, directly and indirectly, of decreasing the numbers of suitable young people available to take up craft apprenticeships. The tendency for young people to stay on longer at school, though a most desirable development in itself, will have a similar effect. In 1955, one in 13 of the young people in the appropriate age group in England and Wales stayed on at school beyond the age of 17; if present trends continue by 1965, the figure will be one in 10. The abolition of national service will make available to the civilian labour force a certain number of young men who would otherwise have been absent on military service. But so far as apprentices are concerned, the effect of this will be partly reduced by the need of the Services to step up considerably their own intake to replace the skilled workers whom they previously obtained by means of national service. Plans are in hand for the Services' training facilities to be expanded and improved to meet the extra numbers they will require. It is very much in the national interest that the Services should attract their share of the young people available, both to meet the country's defence commitments and because many of the men so trained will later bring back their skill to civilian life. Nor must one forget the needs of commerce; the introduction of a new commercial apprenticeship scheme in 1957 may—and it is desirable that it should—have the effect of diverting towards a commercial career some of the young people who previously

saw their only opportunity of obtaining progressive training for skilled employment on the workshop floor.

29. The picture would be very gloomy indeed were it not for the increase in the number of school-leavers that is due to take place over the next few years. The "bulge" presents an opportunity to industry that is unlikely to recur: so far from considering it an embarrassment we should warmly welcome it.

#### *Need for Information*

30. The first step needed is for the appropriate bodies in each industry to assess the numbers of apprentices their industry will need over the next few years. In order to do this they will almost certainly need better statistics than they have at present. We consider that the collection of information about the limited range of occupations for which apprenticeship is the means of entry in an industry can be most readily done by that industry itself. It is, however, desirable that it should do so within the framework of a national classification of occupations, e.g., that used for the Census or the slightly different one used by the Ministry of Labour for placing people in employment.

#### *Wastage*

31. In considering the adequacy of intake into apprenticeship, a useful starting point is the number of apprentices who would be needed to maintain the skilled labour force at its existing level. This will depend on the rate of "wastage" from the occupation.

32. The most obvious causes of wastage are retirement and death. Taking the male working population as a whole, annual wastage from these two causes is at present about 1.87 per cent. Whether the rate of wastage for any particular occupation is higher or lower than this will depend on how the age structure of that occupation compares with the average of all occupations. Guidance on this can be obtained from the Census Reports.

#### *Replacement Rates*

33. But death and retirement are not the only, nor indeed the most important, causes of wastage. Other causes are promotion, disablement and net losses through change of occupation, change of industry, and migration. Not all men who leave their present job represent a source of wastage. A man who leaves one employer to take up similar work with another employer is not lost to the industry. A man who leaves to take up similar work in another industry is lost to the industry but not to the occupation. A man who leaves to take up different work, or is promoted within his existing firm, is lost to the occupation and

will need to be replaced if the industry is to maintain the size of its labour force in that occupation. These are some examples of the differentiations that need to be made in determining whether the loss of any individual to a firm, or to an occupation within a firm, is a source of "wastage" or not.

34. If the total wastage from all causes is at the rate of four per cent. a year over all ages—and assuming a five year apprenticeship beginning at the age of sixteen—a ratio of apprentices to skilled adult workers of one to four would just about maintain the labour force. If the wastage is six per cent. a ratio of one to three is necessary. If the wastage overall is at these percentages, but tends to be greater at the younger ages and less at the older ages, a higher proportion of apprentices will be needed. These percentages may seem high, but enquiries that have been made in relation to particular occupations indicate that, for some, the percentages of wastage quoted are in fact too low. We shall be surprised if industries generally do not find that their actual rates of wastage are higher than they suspect.

## *Allowance for Expansion*

35. The figures given above relate to the maintenance of the skilled labour force in an industry at its existing level. If the labour force needs to expand, clearly an even higher proportion of apprentices to adult workers will be necessary to achieve the required degree of expansion.

## *Collection of Information*

36. We consider it essential that industries should lose no time in collecting information about wastage rates, for without it they will be unable to assess at all accurately the number of apprentices they will need. Though the collection of these statistics should be a matter for each industry, industries will no doubt welcome advice on the detailed arrangements needed in order to obtain them. How this help might be given is a matter to which we shall refer later.

## *Ratios*

37. Having ascertained its requirements—in other words, having determined for the industry as a whole the ratio of apprentices to skilled workers required—it will then be for each industry to consider how these are to be met. Industries will need to decide, for example, whether each firm should train its appropriate allocation of apprentices or whether training should be concentrated in those firms best equipped to give it. At present, under some industrial agreements, the number of apprentices an individual firm may engage is related to the number

of adult workers it employs in the occupations concerned. It is our own view that, in deciding the number of apprentices which a firm is capable of training, its facilities for training are of much greater importance than the number of adult skilled workers employed. We therefore believe that the uniform application to individual firms of ratios calculated on a national basis is an unrealistic and wasteful procedure. We were interested to learn that, with one exception, there are in Western Germany no industries in which ratios are uniformly applied in this way. The essential requirement is that industries' planned intake of apprentices over the next few years should be fixed at a sufficiently high figure to provide training for the short-term additional supply of young people that will be available.

## FACILITIES FOR TRAINING

38. The responsibility which an industry collectively has for the training of its young workers must in effect be a responsibility which is shared by each firm in the industry. There are some firms which do not at present train apprentices because they find it cheaper to take on as adults those whom others have trained—an attitude which we consider irresponsible. But there are many firms which have hitherto not made any contribution towards the training of apprentices, either because they are unable to give the whole range of training required, or because their activities involve construction work on a contract basis in different parts of the country which makes it difficult for them to take apprentices. If an industry decides that in future these firms should be encouraged to undertake the training of apprentices it will have to assist in the overcoming of these difficulties. Most of the suggestions we make below will themselves raise problems of one sort or another. But we believe these are not insoluble.

### *Small Firms*

39. Inability to give the whole range of training required is a difficulty encountered by the smaller firms and by those larger firms which employ only a few persons in apprentice-trained occupations. Some of these firms have found it useful to join group apprenticeship schemes. Under such a scheme a boy is apprenticed to one firm but undertakes those parts of his training which his own firm is unable to give him with other firms in the group. The training schedules of each individual apprentice are arranged by a group apprentice supervisor who may also undertake the initial process of selecting boys for apprenticeships on behalf of the firms in the group. Experience seems to show that the apprentice supervisor should himself be independent of all the firms in the group. One great advantage of a

group apprenticeship scheme is that it increases the facilities for training without the need for any additional capital expenditure.

40. Another possibility is for firms to combine in the provision of a joint training centre in which the apprentice may undertake part of his training. This is already being done, on a small scale, in the training of foundry craftsmen. We saw a joint training centre in Germany in which apprentices received the first twelve months of their training and were greatly impressed by it. Many of the larger firms in this country have their own apprenticeship works schools in which the apprentices undertake their initial basic training. In the nature of things the small firm cannot provide a school of this sort. But by combining with other firms it can achieve for its apprentices the benefits of a works school training without itself needing to own such a school.

41. A similar result could be achieved by an extended use of pre-apprenticeship courses. By this we mean full-time courses held at technical colleges lasting for periods of about six or twelve months. A number of such courses are at present in operation, particularly in Scotland, for young people wishing to enter the building and engineering industries. A boy who has attended such a course may be allowed to count the whole or part of his attendance towards the apprenticeship period. Thus in Scotland a boy who has attended a six months pre-apprenticeship course in building may have his apprenticeship period reduced by a corresponding amount. An extension of the use of such courses so that they become, in effect, "initial period of apprenticeship" courses could be of great assistance to small firms. We recommend that industries should consider asking for such courses to be provided more widely by technical colleges.

42. Some firms in rural areas are unable to send apprentices to attend classes of further education because there is no technical college within easy travelling distance, or because the number of apprentices in the area is not sufficient to justify the introduction of an appropriate course. The release of an apprentice on one day each week can also be a source of difficulty to a small firm because of the dislocation which the apprentice's absence may cause to the work schedules of the adult workers. These difficulties may be overcome by the system of "block release", under which the apprentice attends classes whole time for a period each year equivalent to the time he would have spent under "day release". Besides being of assistance to firms this arrangement has educational advantages as well.

## *Large Firms*

43. The Building Apprenticeship and Training Council recommended in its final report that those large firms whose operations make it

difficult for them to train apprentices themselves should contribute towards the cost of training apprentices for the industry. The principle of a contribution towards training by those firms which are themselves unable to train is one that other industries also should consider.

## WHEN SHOULD APPRENTICESHIP BE SERVED ?

44. In the early days of apprenticeship the minimum age at which a craft apprenticeship could be completed was twenty-four ; to-day, the maximum is usually twenty-one. Generally speaking it is the age by which apprenticeship must be completed that determines the maximum age of entry, this latter being fixed in accordance with the minimum period that must be served to enable an apprenticeship to be completed by twenty-one.

45. Is there any virtue in this upper age limit ? There are two kinds of people who might be adversely affected by it : the boy or girl who stays on at school beyond the normal age of entry into apprenticeship ; and the young person who, after a period spent in other work, decides he would like to undertake training for skilled employment.

### *Those Who Stay on at School*

46. Young people who are seeking craft apprenticeships and who stay on at school beyond the age of sixteen usually do so in order to take the General Certificate of Education or to follow a course of a similar standard. Pupils do not normally sit for the G.C.E. examination before they are sixteen and in some cases they may be between sixteen-and-a-half and seventeen before they do so. (Boys who stay on at school for longer than this will usually be aiming at something other than a craft apprenticeship.) Most existing nationally agreed schemes of apprenticeship training include some provision for boys to begin their apprenticeship after the normal starting age, and in some circumstances to receive remission of part of the apprenticeship period. These provisions have not, however, always been put into effect at local level. We think it essential that they should be. The problem would be met if a boy who has continued his education up to the age at which the G.C.E. examination can be taken were allowed to begin his apprenticeship late, and receive an appropriate remission of the apprenticeship period.

### *Those Who Change Their Mind*

47. We think, too, that there should be greater flexibility in admitting older boys or girls to apprenticeships for reasons other than that they have stayed on at school. The best time for an apprenticeship

to be served is during a boy's teens, and it is generally desirable that by the time he has become an adult, the apprentice should have reached journeyman's status. We are concerned too that nothing should be done to discourage a young person from undertaking an apprenticeship at as early an age as possible; the attractions of earning more money more quickly in non-skilled occupations are already a sufficient disincentive to the undertaking of an apprenticeship. Nevertheless we feel that it should be possible in exceptional cases for the young person who has made a wrong choice of career, at what is after all a relatively early age, to remedy this by starting an apprenticeship at later than the normal age.

### *The Fifteen Year-Old Leaver*

48. Most industries recruit their future apprentices while they are still fifteen, and in the majority of these industries this is also the age at which apprenticeship begins. In most of the larger apprentice-employing industries, however, apprenticeship does not begin until the age of sixteen, so that most boys begin their apprenticeship at that age.

49. Should the age of entry to apprenticeship in these industries be reduced? This would enable a boy to start an apprenticeship immediately on leaving school. The gap between entry into employment and the start of apprenticeship can cause problems. But it also provides a useful settling-in period, in which a boy has the opportunity to get his bearings and see something of industry before he commits himself to a specific course of training.

50. One of the dangers of reducing the age of entry into apprenticeship is that it could provide an inducement to boys to leave school earlier than they might otherwise have done. The increasing tendency for young people to stay on longer at school has been noted earlier in our report, and this is something which we wish to see encouraged. Moreover, the minimum statutory school leaving age will not always remain at fifteen.

### *Bridging the Gap*

51. We therefore do not recommend that the starting age for apprenticeship should be reduced. We suggest rather that steps should be taken to ensure that any time between entering employment and starting an apprenticeship is well spent. Some firms have found it profitable to arrange formal courses of training within the firm. Others have found that less formal arrangements are more satisfactory. This is a matter on which too great rigidity in practice is undesirable. But it is also a matter on which each industry should have a policy.

52. One of the dangers in the existence of a gap between the end of full-time, and the beginning of part-time, education, is that it may lead the future apprentice to lose interest in education and in the habit of study, with the result that his standard of literacy may decline. Some industries have met this danger by releasing potential apprentices for further education for one day a week during the interval between leaving school and starting apprenticeship, so that there is no interruption in their education. We commend this practice and suggest that use might be made of it particularly to improve the future apprentices' standard of English and Mathematics.

## SELECTION

53. Arrangements for the systematic selection of apprentices are of first importance. Where an apprenticeship cannot be successfully completed without the absorption of a certain amount of theoretical instruction, it is pointless for boys to be taken on as apprentices if they lack the requisite intellectual ability. But it is equally important not to set the standards of selection too high.

54. Most apprenticeship agreements provide for the serving of a few months on probation within the total apprenticeship period. Probation is the time when mistakes in selection (on the part of both the employer and the would-be apprentice) can be rectified, and the process of selection should not be regarded as completed until the probationary period is over.

### *Youth Employment Service*

55. In this matter of selection we consider that the Youth Employment Service has an important role to play. We are glad to note the developments in the Service that have taken place since the Joint Consultative Committee issued its report in 1945, though we feel that the need for ensuring that the Youth Employment Officers are themselves adequately trained for the job is a matter to which continuing attention should be paid.

56. It is most desirable that each school-leaver should be able to obtain impartial advice about his choice of a career, and the Youth Employment Officer, working in co-operation with the schools, is in the best position to supply this. The Youth Employment Officer can help employers by submitting to them a number of young people who appear to be *prima facie* suitable for openings they wish to fill. Though the selection of apprentices must remain the responsibility of industries themselves, we consider that employers will find it to their advantage to make full use of the facilities of the Youth Employment Service.

## SCOPE OF TRAINING

### *Need for Flexibility*

57. We come now to the content of training. Here we are convinced that, particularly in the light of present day technical developments, the greatest need is for flexibility. Over recent years there has been a tendency for apprenticeship to be regarded as a means of entry into employment in one specific occupation. But occupational requirements are constantly changing as new methods of working are developed, so that an arrangement of this kind is likely to lead to unnecessary rigidity and to difficulties of demarcation between one occupation and another. That apprenticeship should lead to skilled status in one narrowly defined occupation forms no part of the system as it originally developed in this country. It is interesting to recall that before the passing of the Statute of Artificers in 1563 a man who had served an apprenticeship in any one craft was entitled to practise in any other. Modern industrial requirements are far too complex to allow of any return to so general a practice, but the idea behind it is one that we should like to see return—that the status of the man who has served an apprenticeship is that of a skilled worker, able to turn his hand to a fair range of operations, rather than that of a worker whose skill is narrowly specialised. The demarcation difficulties that occur to-day between men in different occupations arise from the fear that technical change will lead to the disappearance of the need for a particular skill, with a consequent loss of a man's source of livelihood. This is a very real fear and its importance should not be under-estimated. But the proper way to dispose of it is to equip the individual to meet change by giving him a wider range of skill so that as industrial requirements alter he will be sufficiently adaptable to cope with them. Such a widening of the range of training given will not be possible or appropriate in all occupations. But we feel strongly that, in considering the scope of their present apprenticeship training, industries should regard this as of fundamental importance.

### *Syllabuses and Tests*

58. In Western Germany, the requirements of the job (job criteria), detailed syllabuses of training, and tests on completion of apprenticeship are specified by the central authorities in respect of each skilled occupation. The object is to ensure that an apprentice is properly trained in all the operations that may have to be performed within a particular occupation and not merely those which may be required by an individual firm. That an apprentice should receive all-round training is also the object of apprenticeship in this country, though in few industries are there agreed syllabuses of training and in still fewer

is the passing of a test compulsory for the successful completion of apprenticeship.

59. The great value of detailed syllabuses and compulsory tests is that they help to maintain a high standard of training; their danger is that they may tend towards inflexibility. It is important that an apprentice's training should not be restricted to the operations customarily performed in an individual firm if the range of these is less than may be expected of that particular kind of skilled worker. But it is equally desirable that the training given in an individual firm which is perhaps ahead of the rest of the industry in production techniques should not be restricted by the need to conform to a syllabus drawn up for the industry as a whole. We think that industries would find advantage in detailed syllabuses and recommend that they should consider this in the light of their own circumstances.

60. On the use of tests, we are opposed to these being made a condition for the completion of apprenticeship (if an apprentice is not going to make the grade, appropriate action should be taken long before the end of his apprenticeship period), but there may well be advantages in a test which confers an additional qualification on the ex-apprentice. The examinations (practical and theoretical) leading to the National Craftsman's Certificate in the Motor Vehicle Retail and Repair Trade are an example of such an arrangement which is proving of value.

## ORGANISATION AND METHODS OF TRAINING

### *Organisation*

61. The provision of good training in a firm is a matter partly of organisation and partly of methods. Good organisation requires the drawing up of some sort of programme to ensure that the apprentice receives training over the whole field which it is necessary for him to cover—whether or not this has been defined in a nationally agreed training syllabus. In a large firm such a programme may provide for a certain period to be spent in a works school followed by varying periods in different parts of the works. In a small jobbing firm the programme may be much more informal—though the standard of training equally high—being dependent to some extent on the range of work in hand at any particular moment. The 1945 report of the Joint Consultative Committee said it was the experience of firms employing an appreciable number of apprentices or learners that the appointment of an apprentice supervisor was the most satisfactory method of dealing with their training. Even when the number of apprentices is very small we consider it essential that one person in the firm should be responsible for the general organisation and oversight

of their training. We believe that the benefits of this sort of arrangement are now widely recognised, and that most firms which take training seriously have given proper attention to its organisation.

### *Methods*

62. While this may be true of organisation, we consider that much more attention could profitably be given to methods of training. Not only would this increase the quality of training but it would in some cases enable it to be given in a shorter period. Both these considerations make sound economic sense. Training is expensive; the more concentrated it is the cheaper it becomes and the sooner the worker is able to attain skilled status—to his own and his employer's advantage.

### *Training of Instructors*

63. By methods of training we mean the techniques of imparting knowledge from the instructor to the trainee. This means that instructors should not only be practised in the skills which they have to teach, but should have an understanding of—which means training in—the techniques of teaching. This applies not merely to instructors in works schools but to skilled workers on the shop floor to whom the apprentice may for a time be attached for training. Proper instruction cannot be given without the co-operation of the craftsman who is called on to help train an apprentice; and a corollary of this is that his employer must make sure that he does not suffer financially thereby—e.g., by reduction of piece-work earnings.

64. Most of those instructors who have received any sort of training in the art of instruction have done so through the Training Within Industry Job Instruction Programme. There are, we understand, a few industries which maintain central establishments for the training of instructors. The Ministry of Labour also provides courses at its Instructional Staff Training College at Letchworth; although originally established for instructors in the Ministry's Government Training Centres, these courses have been attended by a substantial number of representatives of individual firms and industrial organisations. The training of instructors merits the urgent attention of all industries. For a training scheme will only be as good as the instructors who implement it.

### *Attitude to Training*

65. We have suggested that the practice of larger firms in establishing a works school in which the apprentice may receive his initial basic training is one that industries might consider extending on a communal basis to smaller firms. But we believe that in the last resort the place of training is of less importance than the atmosphere in which it is given.

Thus a good training establishment may take the form of a works school, or a separate part of the factory, or the shop floor itself. What determines the quality of the training given is the presence or absence of a positive attitude towards training as something that must be imparted and not merely acquired.

## LENGTH OF APPRENTICESHIP

66. On the range of training and the methods of giving it will depend the desirable length of the apprenticeship period. The five year period which is present practice in most apprenticeships has come in for a good deal of criticism. Comparison with foreign practice on this point can be misleading. At the end of his apprenticeship an apprentice in this country is expected, not only to be fully trained, but also to have the necessary works experience to qualify as a skilled worker. In other countries an apprentice is expected to be fully trained on completion of his apprenticeship, but requires further experience before he is regarded as being fully qualified. Nevertheless, no magic attaches to the figure "5" and it would be remarkable if so many differing occupations did in fact require exactly the same period of training. There are some occupations for which five years may not be too long; but we feel that with the adoption of up-to-date methods of training there are others in which the present period could be reduced. There are two possible ways of approaching this situation: either the apprenticeship period could be shortened, or the range of training given could be increased in the way we have suggested above. Which of these alternatives is to be preferred will differ from one occupation to another, but in general we feel that, wherever this is possible, a widening of the range of training given will be in the best interests of both industry and the individual worker.

## FURTHER EDUCATION

67. Our enquiries have shown that the overwhelming majority of industries are of the opinion that education given at school before the minimum school leaving age is reached should be general rather than vocational in character. We would endorse this view. From the standpoint of industry it is more important that a young person should have had a sound general education, than that he should have received some sort of vocational instruction which industry is itself much better qualified to give.

68. Release from employment during working hours for purposes of further education is now becoming increasingly accepted as an integral part of apprenticeship. The educational courses being taken

by the great majority of apprentices have a vocational foundation and we consider this to be a sound principle. We welcome the steady increase that has taken place in the number of employers who release their apprentices for attendance during working hours at their local technical college, and we hope that those who do not do so at present will follow their lead.

### *Matching Courses to Apprentices*

69. But this increase has itself caused problems. Before the last war it was normally only the volunteer who attended classes in further education, and he was usually of more than average ability. The standard of courses was accordingly fixed with this kind of student in mind. The acceptance of further education as an integral part of the training of all apprentices has meant a wider variation in the abilities of apprentices attending educational classes. It is important that nothing should be done to impair the prestige attaching to the existing examinations, and that the standards required of the abler apprentices should not be reduced. For some boys, particularly those capable of rising higher up the ladder, a National Certificate Course may be appropriate; but a boy should only be entered on such a course if he appears to have the ability to succeed in it. For the majority of the abler craftsmen the most suitable courses are those leading to qualifications such as the certificates of the City and Guilds of London Institute. It is important that boys should undertake courses which are properly matched to their capacities, and have something practicable to work for, the attainment of which will give them a sense of achievement. Success is in itself an important inducement to learn more. Some technical colleges have been experimenting for a number of years in the provision of courses with a more practical bias, and we have been interested to learn that the City and Guilds of London Institute has recently introduced several courses of this kind.

### *Need for Co-operation*

70. Considering how rapidly it has developed in recent years, it is not surprising that the practice of day release for further education should have been accompanied by some teaching troubles. In many instances co-operation between employers and technical colleges has been close. In others it has been less satisfactory. What a boy is taught at a technical college—whether its scope is vocational or general—should form an integral part of his apprenticeship. What sometimes happens at present is that the employer releases his apprentices but takes no interest in what they are doing at the college; while the technical college pays no regard to the relevance of the education it is giving the apprentices to what they may be doing on the other four days

of the week. It is necessary to ensure, on the one hand, that the content of further education should be that which industry in fact requires; and, on the other, that the whole of the apprenticeship period forms part of a single educational process. This requires the closest co-operation between industry and those responsible for the conduct of further education both at national and local level. We would welcome action by education authorities to secure a greater participation by people engaged in industry (both employers and workers) on the boards of governors of technical colleges and on local advisory committees. We recommend that local apprenticeship committees should consider inviting a representative of the technical college to serve on their committees where this is not already the case.

## NATIONAL AND LOCAL ORGANISATIONS

71. The Report of the Joint Consultative Committee in 1945 recommended the establishment in each major industry of a National Joint Apprenticeship and Training Council or other appropriate machinery, and that the services of the Ministry of Labour and National Service, the Ministry of Education and the Scottish Education Department should be made available to these Councils. Such bodies have now been established in a large number of industries, with, in many cases, similarly constituted committees at regional or local level. The effectiveness of this machinery varies very much between industries and between different parts of the country in the same industries.

72. If an industry is to carry out its responsibilities for the training of its young workers it is essential that it should have the necessary machinery to do it. A strong lead is needed from the centre, but active local committees are often just as important. The form which the industrial machinery takes and the respective parts to be played by employers' associations and trade unions will not necessarily follow a standard pattern. Employers' associations can do much to assist their members in raising the standard of training, and trade unions should not be slow in bringing to the notice of the appropriate industrial body the absence of adequate training facilities in particular concerns.

## IV. *Non-Apprentices*

73. In the years since the Second World War, great progress has been made in the development of apprenticeship training. There has been much less advance in the devising and adoption of arrangements for the training of non-apprentices. A boy who fails to obtain an apprenticeship has usually little chance of obtaining other systematic training in employment. The development of training for non-apprentices requires the serious attention of industries, and particularly of those that employ a large number of young people in non-apprentice occupations.

### VOCATIONAL TRAINING

74. For those jobs which contain an element of skill—and there are very few that do not—we consider that there ought to be a period of systematic training. Such training does much in itself to help the young worker feel at home in his new surroundings, increases his confidence, and by giving him a skill and a sense of responsibility makes a better worker of him. The length of training desirable will vary widely between different occupations. In many it will not need to be more than a few weeks. In some industries it may be desirable to draw up a fairly standard syllabus of training; in others the training arrangements will vary from firm to firm. Here, as in apprentice training, the utmost flexibility is desirable.

75. Though the subject-matter to be taught and the length of training may be different, the main essentials of a training programme for non-apprentices are the same as those involved in the training of apprentices. It is undesirable that specialisation should begin too early. Proper supervision, both during training and in the allocation of work after training, is essential, and those responsible for instructing the trainees should know how to teach. Wherever possible there should be opportunities for the capable young trainee to obtain promotion, either to more skilled or responsible employment, or for further training—for example as a craft apprentice. For some occupations appropriate courses of further education have been introduced by the City and Guilds of London Institute, and there is scope for more courses of this nature.

76. Of course training costs money; but we wonder whether industries have sufficiently reckoned the cost of *not* training—in terms of increased labour turnover, lower output, greater scrap, and the like.

The training of non-apprentices may be hampered by shift work or the integration of the young worker in a production team, both of which make it difficult for a trainee to be released for further education. But experience has shown that these difficulties can be successfully overcome. One of the industries which has made most progress in the training of its non-apprentices—though it recognises that much still remains to be done—is the Iron and Steel Industry. We were particularly interested to learn of the recent introduction in this industry of a co-operative scheme for the training of junior operatives, in which some twenty firms are participating.

## NON-VOCATIONAL TRAINING

77. Industry shares with the community at large the obligation of ensuring that young people have the opportunity, not merely of becoming good workers, but also of developing into mature individuals and responsible citizens. With this in mind some firms release their non-apprentice young workers to attend colleges of further education for courses of a non-vocational nature. Firms have also found of value courses to promote responsibility and develop character, provided by such organisations as the National Association of Boys' Clubs and the Outward Bound Trust. Perhaps the main essential is that all those who come into contact with young people at work—whether they be employers, managers, foremen, adult workers, or trade union officials—should recognise their responsibilities for assisting the "education", in its widest sense, of these young people, and for providing an environment in which it can prosper.

## INDUCTION

78. We consider that for all young workers—and not merely for apprentices—there ought to be adequate induction arrangements when they join a firm, particularly when they do so direct from school. These arrangements need not be elaborate, though the larger the firm the more formalised they will need to be. Their aim should be to help the young person to make the transition from school to work, by introducing him to the nature and purpose of the firm he has joined, giving him a clear picture of his duties and responsibilities, and showing him the facilities available to him. It is also important that all young workers should receive the necessary instruction in safety, and full information about any health hazards relating to their work. Young people are more liable to take unnecessary risks than are adults; but they are also more able to assimilate new ideas, and good safety habits acquired at this stage will remain with them for the rest of their working lives.

## V. Opportunities for Girls

### *Apprenticeships*

79. What we have said earlier in this Report applies to girls as well as boys. Most apprenticeships are open to girls; nevertheless the number of girls who serve craft apprenticeships is very small. No doubt one reason for this is the fact that the working life of the average boy is considerably longer than that of the average girl, because girls expect to get married and are often not interested in undergoing a long period of training. But for women, marriage no longer means the immediate termination of employment. There is also an increasing tendency for women to go back to work, on either a full or a part-time basis, after they have brought up a family. We hope that employers will not discourage suitable girls who wish to be trained under apprenticeship or similar arrangements purely because it has been traditional to train boys. We consider also that industries might profitably review the various apprenticeship trades with which they are concerned to see which of them might be made more accessible to girls. The recently introduced commercial apprenticeship scheme is designed to attract girls as well as boys.

### *Other Forms of Training*

80. Some particularly promising openings for girls are those where the period of industrial training is relatively short. We consider that there are two fields in particular in which facilities for this sort of training might be increased.

81. The first is for the girl of above-average educational attainment. The girl with a good science or engineering degree is badly needed as a scientist or technologist. Girls who have stayed on in the sixth-form at Grammar Schools have reached a standard of educational attainment of great potential value to industry. For girls who have taken science subjects the sort of jobs we have in mind are those at "technician" level. Both these girls, and those who have taken non-science subjects in the sixth-form, would also provide useful recruits for such operations as sales planning, market research, and work study.

82. The other field in which we consider training opportunities could be improved are those jobs which are traditionally regarded as women's occupations. We believe that the scope for, and the benefits likely to be achieved from, better training facilities in these occupations are greater than is commonly supposed. The Wool, Cotton, and Boot and Shoe Industries are examples of industries which have made

## OPPORTUNITIES FOR GIRLS

considerable progress in introducing training of this kind. Girls who are properly trained not only make better workers, but obtain a skill which they never lose and which enables them to return to work with a minimum of retraining later on in their married life.

## VI. *National Apprenticeship Council*

83. At present no organisation exists in this country with the specific function of keeping apprenticeship and training arrangements in general under review. We feel that there is a need for such a body.

84. The functions of an organisation of this kind would be two-fold. Firstly, it would follow up the recommendations made in our Report and keep the representative organisations of employers and workers at national level informed of the progress that is being made. Secondly, it would collect and disseminate information about those aspects of training which are common to more than one industry.

### *Follow-Up*

85. The first of these objects arises directly out of the "bulge". The rise in the number of school leavers has already begun and there is a danger of the opportunity which the "bulge" presents being lost if action is not taken quickly. It would be the function of the body which we have suggested to assist industries in formulating the statistical enquiries which they will need to undertake, and, by asking to be informed of the results of these enquiries, to keep the national position under review as the "bulge" develops.

### *A Source of Information*

86. The second object is of more lasting significance. Although conditions vary between different industries, there are certain factors which are common to all forms of training. We consider that there is much information which, if collected centrally and distributed to the various industries, could be of great assistance to these industries in raising their standards of training. The techniques of training, for example, do not vary greatly between different occupations. Some industries have accumulated experience of training techniques which would be of assistance to other industries. We think it would also be useful if the techniques used by the Ministry of Labour in Government Training Centres were more widely known. The drawing up of more or less detailed syllabuses of training and the use of tests at the end of apprenticeship are other matters of which some industries have had experience and from which others might find it useful to learn. The detailed study of practice in other countries would reveal many points that might be of use to our own industries.

### *An Industrial Organisation*

87. In carrying out these functions the organisation would be providing a service for industry, and it is by industry that we think it

ought to be established. What we have in mind is a small Council (which might be called the National Apprenticeship Council) consisting of representatives of the appropriate industrial organisations who would be selected because of their knowledge of, and interest in, the training of young people. The Council would need to be served by a small secretariat, and there might be an advantage in its having an independent chairman. It would be able, we feel sure, to count on the full co-operation of the Ministry of Labour and the Education Departments. The Council would have no executive powers. Its function would be to help, encourage and, if necessary, exhort. But the responsibility for training in each individual industry would rest, as now, on the industry concerned.

88. In making this recommendation we have felt it right not to be too specific about details. These are matters which would need to be settled in the course of discussion between our parent organisations. For ourselves it is the principle of the recommendation—that there is a need for a body of this nature—that we wish to stress and hope to see accepted.

## VII. *Conclusion and Summary of Recommendations*

89. The immediate problem presented by the "bulge" is whether industry will see its own interests clearly enough and soon enough to make sure that the opportunity which it presents is not thrown away. We have no doubt that industry can absorb the extra numbers of young people who will be coming forward at levels commensurate with their abilities. We are equally certain that it will fail to do so—to its own cost—unless it increases substantially its present intake into apprenticeship. The increase in the number of fifteen year-olds has already begun. Time is therefore short, and we urge each industry most strongly to lose no time in re-assessing its need for skilled workers, while the opportunity to make good deficiencies is still with us.

90. But an increase in quantity will be of no avail if we do not also make sure that the quality of the training given is of the high standard necessary to enable us to maintain our place as one of the great manufacturing and trading nations of the world. Success in this will depend on our using to the full the abilities and talents of the young people who will be leaving school over the next few years.

91. We therefore ask industry in general, and each industry in particular, to consider carefully the various points and recommendations which we have made. These can be summarised as follows :

1. In 1962 there will be 316,000 more boys and girls aged fifteen than there were in 1956—an increase of over 50 per cent. (para. 1).

2. The ending of national service will remove some deterrents to the engaging of apprentices. Its effect on the numbers available for skilled civilian employment will be small. Although some firms may temporarily find it difficult to maintain their present intake of apprentices, we hope they will make every effort to do so. (paras. 4 - 6).

3. Both long-term population trends and prospective demands for skilled workers mean that industries will require all the skilled workers that the "bulge" can provide. (paras. 8 and 27).

4. Though there may be employment problems in some areas, in the country as a whole the problem presented by the "bulge" is not one of employment but of training. (para. 8).

## CONCLUSION AND SUMMARY OF RECOMMENDATIONS

5. Existing facilities for apprenticeship training are inadequate in quantity and, in some cases, in quality as well. (para. 10).
6. The existing division of responsibility between Government and industry for the education and training of apprentices should be maintained. (para. 18).
7. Our traditional apprenticeship system should form the foundation of future training arrangements, but some existing practices need re-examination. The apprenticeship system must not be allowed to lose its capacity for change and improvement. (paras. 10 and 18).
8. Training arrangements should be flexible and designed to meet the circumstances of different occupations. There are no stereotyped arrangements that would meet the requirements of all sections of industry. (para. 20).
9. Occupations for which qualifications at the technician level are desirable should be identified in the light of developments and suitable training introduced for them. (para. 22).
10. Industries should examine their craft apprenticeship requirements in the light of current wastage, their future prospects, and the need to take advantage of the once-for-all opportunity presented by the "bulge". (paras. 30, 35, 36 and 37).
11. Though it is necessary to determine the appropriate ratio of apprentices to adult skilled workers for an industry as a whole, the application of a uniform ratio to individual firms is unrealistic and wasteful. (para. 37).
12. The intake of each industry should be sufficiently high to enable it to take full advantage of the "bulge". (para. 37).
13. Having ascertained their requirements, industries should decide how the necessary training facilities are to be provided. The responsibility which an industry collectively has for the training of its young workers must in effect be a responsibility which is shared by each firm in the industry. If more firms are to undertake training than do now, increased use will need to be made of such arrangements as group apprenticeship schemes, joint training centres, pre-apprenticeship courses, and "block release" for further education. Firms which are unable to provide training themselves might make some other contribution towards the cost of training the skilled workers their industry requires. (paras. 38 - 43).
14. There should be more flexibility in the maximum age of entry into apprenticeship. Young people who stay on longer at

school should be allowed to enter apprenticeship at a later age and receive an appropriate remission of the apprenticeship period. Young people who make a wrong initial choice of employment should not be debarred from entering an apprenticeship because they are above the normal age. (paras. 44 - 47).

15. Any period between a boy's entry into employment and his starting an apprenticeship should be put to good use. The prospective apprentice should be given "day release" for further education during this period. (paras. 51 and 52).

16. The selection of apprentices should be systematic, and appropriate standards should be set. The process of selection should not be regarded as completed until the end of the probationary period. Both young people and employers will benefit if selection is made in co-operation with the Youth Employment Service. (paras. 53, 54 and 56).

17. Individuals should be equipped to meet technical change by training for a wider range of skill than has often been customary in recent years. In considering the scope of training appropriate for a particular occupation, industries should regard the need to meet possible change as fundamental. (para. 57).

18. Detailed syllabuses of training might be of advantage to some industries and should be considered by all. (para. 59).

19. The passing of a test should not be made a condition for the completion of apprenticeship, but the use of a test which confers an additional qualification on an ex-apprentice has proved of value. (para. 60).

20. One person in each firm should be responsible for the general organisation and oversight of apprentices' training. (para. 61).

21. Methods of training can be improved. Skilled workers who have to instruct apprentices should be taught how to teach. A training scheme will only be as good as the instructors who implement it and the training of instructors merits urgent attention. (paras. 62 - 64).

22. The period and content of apprenticeships should be reviewed. It may be desirable to reduce the length of some apprenticeships, and to widen the range of training of others. In general, to widen the range of training will be in the best interests of both industry and the individual worker. (para. 66).

23. Firms which are not now doing so should release their apprentices for daytime study at technical colleges. Such studies should have a vocational foundation. Care should be taken to

## CONCLUSION AND SUMMARY OF RECOMMENDATIONS

allocate boys to courses within their educational capacities. (paras. 68 and 69).

24. There should be closer co-operation between industry and those responsible for further education. (para. 70).

25. Industries cannot carry out their responsibilities for training without the necessary industrial machinery. A strong lead is needed from the centre but active local committees are also important. (para. 72).

26. For all jobs which contain an element of skill there should be a period of systematic training. Training for non-apprentices should be developed and extended, particularly by those industries that employ a high proportion of semi-skilled workers. (paras. 73 and 74).

27. There should be opportunities for the capable young trainee to obtain promotion, either to more skilled or responsible employment, or for further training—for example, as a craft apprentice. (para. 75).

28. Industry has a responsibility for assisting the "education" in its widest sense of the young people it takes into its employ. (para. 77).

29. There should be adequate induction arrangements for all young workers when they join a firm, particularly when they do so direct from school. (para. 78).

30. Girls should not be discouraged from undertaking craft apprenticeships, and industries might review their various apprenticeship trades to see which can be made more accessible to girls. Occupations for which the period of industrial training is relatively short can provide particularly promising openings for girls. (paras. 79 and 80).

31. Industries should make full use of the educational attainments of girls who stay on longer at school. There is scope for extending the training of girls for what are generally regarded as women's occupations. (paras. 81 and 82).

32. A National Apprenticeship Council should be established to follow up the recommendations in this Report and to collect and disseminate information about those aspects of training which are common to more than one industry. (paras. 83 - 88).

92. In conclusion, we wish to record our warm appreciation of the services of our Secretary, Mr. K. H. Clucas, of the Ministry of Labour

## TRAINING FOR SKILL

and National Service. The skill and resource with which he assembled and presented the large mass of material we required for our work was of the greatest possible assistance.

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December 1957

Printed in Great Britain by Green & Welburn Ltd.  
and published by HER MAJESTY'S STATIONERY OFFICE.

MINISTRY OF  
LABOUR AND NATIONAL SERVICE

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